

In response to the Office Action dated September 11, 2001, Applicants submit the following remarks.

REMARKS

Favorable reconsideration and allowance of the subject application are respectfully solicited.

Claims 1-15 are pending in the application, with Claims 1 and 11 being independent.

Section 112 Rejection

Claims 1-15 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. The Examiner takes the position that the terminology "dispersed in a monomolecular state" in Claims 1 and 11 is not clear. Applicants respectfully disagree with this rejection and request reconsideration. Applicants submit that this terminology is explained in the specification at page 10, lines 19-26. Additional information about how the colored resin is produced is given at, for example, page 10, line 27 to page 12, line 20. Applicants submit that the specification and claims comply with all aspects of Section 112, and respectfully request that this rejection be withdrawn.

The Claimed Invention

Before addressing the merits of the rejections under Sections 102 and 103, Applicants believe it will be helpful to review some features of the claimed invention. The present invention, as recited in Claim 1, relates to an aqueous ink comprising a colored resin dispersed therein, the colored resin comprising a film-forming resin and a colorant dispersed in a monomolecular state in the film-forming resin. As recited in Claim 11, the present invention also relates to a coloring material comprising colored resin particles that comprise a film-forming resin, and a colorant dispersed in a monomolecular state in the film-forming resin. In Applicants' view, the cited references do not teach or suggest the claimed invention, either singly or in combination.

Section 102 Rejections

Claims 1, 5-11 and 15 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by EP 732 381 A1, and Claims 1-4, 6 and 11-15 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by EP 130 789 A1. EP 732 381 A1 and EP 130 789 A1 each disclose an ink containing a colored resin. Applicants submit, however, that neither of these references teaches an aqueous ink comprising a colored resin dispersed in the ink, wherein the colorant is dispersed in a monomolecular state.

Claims 1, 6-11 and 15 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Banning et al. (U.S. Patent No. 5,700,851). Banning et al. relates to an ink-jet ink composition comprising a dispersed colored polyurethane. However, the colorant in Banning et

al. is used as a reactant with respect to other prepolymer components (column 3, lines 25-28).

Applicants conclude from this teaching that Banning et al. does not teach an aqueous ink comprising a colored resin dispersed therein, wherein the colorant is dispersed in a monomolecular state.

Claims 1, 5 and 11 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Micale (U.S. Patent No. 4,665,107). Micale discloses an aqueous ink comprising dispersed encapsulated pigments. Applicants submit, however, that Micale does not teach the ink as claimed in the present invention, and that this can be seen from the production process thereof.

Claims 1, 5-11 and 15 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Hodge (U.S. Patent No. 5,985,988). Hodge discloses an ink-jet ink composition comprising a water-dispersible polyester colored by a disperse dye or a solvent-soluble dye. The method of coloring the polyester is taught at column 6, lines 48-60. Applicants submit, however, that this coloring method (which is different from that of the present invention, which dissolves a colorant in a resin) does not always produce a resin comprising a colorant dispersed in a monomolecular state. Accordingly, Applicants submit that Hodge does not disclose the ink according to the present invention.

Section 103 Rejections

Claims 2-4 and 12-14 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over EP 732 381 A or Banning et al., either of which in view of either JP 11-228655 A or EP 130 789 A. Applicants submit that JP 11-228655 A discloses a polyurethane emulsion for an aqueous printing ink and an aqueous printing ink comprising the emulsion, but does not teach anything about coloring resins. Hence, it does not remedy the deficiencies of the other three references, which have been discussed above. Therefore, whether taken singly or in combination, JP 11-228655 A, EP 732 381 A1, Banning et al. and EP 130 789 A1 do not teach or suggest the features of the present invention.

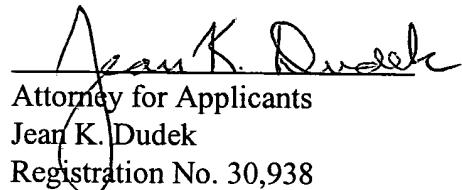
Claims 2-4 and 12-14 also were rejected under 35 U.S.C. § 103(a) as allegedly obvious over Micale or Hodge, either of which in view of EP 130 789 A1. Each of these three references was discussed above and Applicants conclude that the combination of EP 130 789 A1 with Micale or Hodge does not teach or suggest the features of the invention, either.

Accordingly, Applicants submit that the present invention is patentably defined by independent Claims 1 and 11. The dependent claims are allowable for the reasons given with respect to the independent claims and because they recite features which are patentable in their own right. Individual consideration of the dependent claims is respectfully solicited.

Applicants request that all rejections be withdrawn and submit that the present application is in allowable form. Therefore, early passage to issue is respectfully solicited.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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